

AMENDMENTS TO THE SPECIFICATION

The paragraphs beginning on page 7, line 7, to the paragraph ending on page 7, line 14, have been deleted.

Please replace the paragraphs beginning on page 4, line 2, to the paragraph beginning on page 7, line 13, with the following amended paragraphs:

A method of representing an object appearing in a still or video image, by processing signals corresponding to the image [[set forth in claim 1]] described herein, the method comprises deriving a plurality of numerical values representing features appearing on the outline of an object and applying a scaling or non-linear transformation to said values to arrive at a representation of the outline.

In a method [[set forth in claim 2]] described herein, the numerical values reflect points of inflection on the outline.

A method as [[set forth in claim 3]] described herein comprises deriving a curvature scale space representation of the outline is obtained by smoothing the outline in a plurality of stages using a smoothing parameter resulting in a plurality of outline curves, using values for feature points on each outline curve to derive curves characteristic of the original outline, and selecting the [[co-ordinates]] coordinates of peaks of said characteristic curves, wherein said transformation is applied to peak [[co-ordinate]] coordinate values.

In a method [[set forth in claim 4]] described herein, the feature points relate to the curvature of each outline curve.

In a method [[set forth in claim 5]] described herein, the feature points relate to the maxima and minima of the curvature of the outline curves.

A method of representing an object appearing in a still or video image, by processing signals corresponding to the image [[set forth in claim 6]] described herein, the method comprises deriving a curvature scale space representation of the object outline, selecting [[co-ordinates]] coordinates for peaks in the curvature scale space, and applying a non-trivial transformation to peak [[co-ordinate]] coordinate values to arrive at a representation of the object outline.

In a method [[set forth in claim 7]] described herein, the transformation is applied to the [[co-ordinate]] coordinate values corresponding to a smoothing parameter in the CSS representation.

In a method [[set forth in claim 8]] described herein, the transformation is applied to the [[co-ordinate]] coordinate values corresponding to an arc-length parameter along the outline.

In a method [[set forth in claim 9]] described herein, the transformation is a scaling transformation.

In a method [[set forth in claim 10]] described herein, the transformation is a non-linear transformation.

In a method [[set forth in claim 11]] described herein, the transformation is in the form of $z' = a \text{ pow } (z, b) + c$, where a, b

and c are constants and $\text{pow}(z,b)$ denotes z to the power b .

In a method [[set forth in claim 12]] described herein, b is greater than zero and less than 1.

In a method [[set forth in claim 13]] described herein, b is in the range of $0.25 \leq b \leq 0.75$.

In a method [[set forth in claim 14]] described herein, $b = 0.5$.

A method of searching for an object in a still or video image by processing signals corresponding to images as [[set forth in claim 15]] described herein, the method comprises inputting a query in the form of a two-dimensional outline, deriving a descriptor of said outline using a method as [[claimed in any one of claims 1 to 10]] described herein, obtaining a descriptor of objects in stored images derived using a method as [[claimed in any one of claims 1 to 10]] described herein and comparing said query descriptor with each descriptor for a stored object, and selecting and displaying at least one result corresponding to an image containing an object for which the comparison indicates a degree of similarity between the query and said object.

An apparatus [[set forth in claim 16]] is adapted to implement a method as [[claimed in any one of claims 1 to 15]] described herein.

A computer program [[set forth in claim 17]] implements a method as [[claimed in any one of claims 1 to 15]] described herein.

A computer system [[set forth in claim 18]] is programmed to operate according to a method as [[claimed in any one of claims 1 to 15]] described herein.

A computer-readable storage medium [[set forth in claim 19]] stores computer-executable process steps for implementing a method as [[claimed in any one of claims 1 to 15]] described herein.